



CITY OF SUGAR LAND

Engineering Department

CIP Project Number: SW0802

Title: Surface Water Treatment Plant

Project Phase: Design

% of Phase Completion



Cost for this Phase: \$ 2,650,000

Funding Sources: Revenue Bonds

Project Manager: Jessie Li

Contractor: TBD

Consultant: CDM & Malcolm Pirnie

Project Description:

To implement the phased surface water conversion, the City is in the process of constructing a new 9 MGD Surface Water Treatment Plant (SWTP). The treatability study and preliminary engineering design of the SWTP will be completed in April 2009. The second phase of this project will include the final engineering design and construction management. The project will also include geotechnical survey and system operation O&M manual development.

Justification: The City must convert 30% of water usage from groundwater to surface water by 2013 and 60% by 2025. A previous surface water study conducted indicates that the most cost-effective method for surface water conversion is for the City to own and operate its own surface water treatment plant.

Updates: **December 2008-**Successfully completed the pilot plant testing (treatability study) on time and on budget even with the Hurricane Ike interruptions. Among the three membrane manufactures, both Pall and Siemans successfully passed the state required demonstrating testing. However, GE-Zenon failed the demonstration testing. Therefore, only Pall and Siemans will be allowed to bid the project in the future. Other major pilot testing results includes taste and odor analysis and corrosion study. The pilot study report will be completed on schedule.

Surface Water Treatment Plant preliminary engineering design is continuing. A couple of flood and wetland mitigation alternatives have been developed. Coordination meetings with Tract 3 developer were conducted to coordinate the effort. Surface water plant treatment processes have been confirmed with the pilot testing results.

Conducted pilot plant touring for the public, GRP groups, and City of Rosenberg staff. The project team in association with City staff also conducted the Consumer Panel Taste Testing. The taste test results are being analyzed.

March 2009 – The water taste test results were sent to all participants. The pilot testing report has been finalized and submitted to the TCEQ for approval. The pilot plant was disassembled and the testing site was cleaned.

The PER is in the final phase and will be completed in April. The preliminary site layout indicated that the Gannoway Lake site is restrictive in size due to flood plan, flood way, and wet land issues. The estimated construction cost is predicted to be significantly higher than the estimate conducted prior to PER due to the site limitations.

A CMAR penal discussion was conducted on March 5, 2009 for the City's management team to discuss the opportunity of utilizing this alternative project delivery method for the SWTP project.

June 2009 – The PER which included the pilot study and 30% design of the SWTP is completed. A review meeting held on 5/21/09 with design team and City staff's comments provided to CDM. Meeting held with City Manager and Assistant City Manager on 6/09/09 to consider options of purchasing potable water from other entities due to recent increase in estimated construction costs. Decision was made to move forward with design and construction of the 9 MGD surface water treatment plant at the proposed location near Gannoway Lake.

Utility staff are currently reviewing options for project delivery method – either traditional design/bid/build or Construction Management at Risk (CMAR). IF CMAR option selected, portions of the construction funding will need to be shifted to FY2010 budget year to allow contracting as allowed through the CMAR process.

July 2009- Conducted a surface water conversion workshop to City Council on July 7. The workshop included an update to the SWTP PER and CMAR alternative project delivery method.

August 2009- Received final design fee from CDM/MP for the SWTP 100% design. Staff started final engineering design contract negotiation with CDM. City Council approved Resolution No. 09-26 authorizing utilizing Construction Manager at Risk project delivery method for the City's Surface Water Treatment Plant construction and commissioning.

September 2009- PER completed in June. The final engineering design contract is currently under legal review. The contract is on the October 20, 2009 Council agenda for approval. The CMAR RFP is anticipated to be published in October.

October 2009 – The City Council approved the final design contract with CDM on October 20, 2009.

November 2009 – The final design contract was signed by the City Manager on October 28, 2009. A Notice to Proceed letter was sent to CDM on 11/2/09. Project kick-off meeting was conducted on 11/9/09. A Membrane Building design meeting was conducted with the design team on 11/19/09. The building finishing and interior design options were discussed.

December 2009 – Progress meeting No.1 held 12/22/09 to provide updates to design team. Discussions included status of % design to date and coordination with future CMAR contractor (yet to be determined).

January 2010 – CDM is making progress on final design. A draft membrane procurement document has been submitted for review. We received 9 proposals on the CMAR RFP. A CMAR selection committee that consists of 9 staff members was formed to review the CMAR proposals and participated interviews. The committee completed scoring and ranking of all proposals according to the published selection criteria.

